National Transportation Safety Board Washington, DC 20594

Brief of Accident

Adopted 04/20/2000

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File No. 1741		10/26/1998	LAHAINA, HI	Aircraft Reg No.	N860FE	Time (Local): 07:09 HST	
A Num Operatin N Type of F	ne Make/Model: ircraft Damage: ber of Engines: g Certificate(s): lame of Carrier: light Operation:		go	Crew Pass	Fatal 0 0	Serious 0 0	Minor/None 1 0
A Runwa Runway Le R	bt Depart. Point: Destination: Destination: Irport Proximity: Airport Name: Ay Identification: ngth/Width (Ft): unway Surface: rface Condition:	Same as Accident/Incident Loc On Airport KAPALUA 2 3000 / 100 Asphalt	cation		Weath Basi Low Wind Tempe Obst	c Weather: \ est Ceiling: I Visibility:	Weather Observation Facility Visual Conditions None 15.00 SM 070 / 010 Kts 23 None
Pilot-in-Command Certificate(s)/Rating(s) Commercial; Single Instrument Ratings Airplane		62		Т	Total Las Total M	me (Hours) All Aircraft: 6 st 90 Days: 3 ake/Model: 9 ment Time: 9	38 1500

Following a normal approach and landing, the left wing of the fixed gear aircraft dropped and the aircraft skidded on its belly-mounted cargo pod. Despite the pilot's attempt to maintain directional control, the aircraft veered off the runway to the left and down an embankment. Investigation revealed that the left main landing gear strut, a tubular spring steel assembly, was broken approximately midway between the wheel assembly and the fuselage attachment. Laboratory metallurgical analysis revealed that the strut failed due to multiple fatigue cracks that originated from an extrusion lap on the inside diameter of the strut. The lap was formed during the manufacture of the tubing from which the strut is fabricated, and caused a structural discontinuity from which the fatigue cracks initiated.

Brief of Accident (Continued)

LAX99LA016

File No. 1741 10/26/1998 LAHAINA, HI Aircraft Reg No. N860FE Time (Local): 07:09 HST

Occurrence #1: MAIN GEAR COLLAPSED

Phase of Operation: LANDING

Findings

1. (C) LANDING GEAR, MAIN GEAR STRUT - FATIGUE

2. (C) LANDING GEAR, MAIN GEAR STRUT - FAILURE, TOTAL

3. (C) MATERIAL DEFECT(INADEQUATE QUALITY OF MATERIAL) - MANUFACTURER

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING

Findings

4. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

5. TERRAIN CONDITION - DROP-OFF/DESCENDING EMBANKMENT

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows. Structural failure of the main landing gear strut due to metallurgical fatigue. The fatigue cracks originated at an internal structural flaw placed in the part during manufacture.